

## **FLEXIBLE SUBSTRATE MOUNTED SOLID-STATE LIGHT SOURCES FOR EXTERIOR VEHICULAR LIGHTING**

### **Abstract of the Disclosure**

5 Exterior lighting assemblies for use on vehicles include a flexible substrate  
on which are mounted a plurality of solid-state light emitting devices. Preferably,  
light emitting diodes (LEDs) are used for the solid-state light emitting devices,  
although other types of devices can alternatively be employed. The light emitting  
devices are connected to flexible conductive traces provided on the flexible  
substrate and leads are provided to connect to the power supply on the vehicle so  
10 that electrical current can be selectively supplied to energize the light emitting  
devices. The flexible substrate is adapted to be mounted on the exterior surface of  
a vehicle, for example, as a tail lamp assembly, or as a headlamp. Light emitting  
devices that emit different colored light can be used to provide red light to  
indicate slowing of the vehicle due to braking, amber light for turn signal  
15 indication, and white light to illuminate the surface over which the vehicle is  
traveling. A flexible optically transparent cover protects the light emitting  
devices. Due to their flexibility, the light assemblies can be conformed around a  
curved exterior surface of a vehicle.

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